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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/006,716 | 12/10/2001 | Mark R. Zaacks | ZAACKS=1 | 3640 |
| 1444 | 7590 | 08/24/2005 | EXAMINER | |
| BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303 | | | LI, SHI K | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2633 | |

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/006,716 | Applicant(s) ZAACKS ET AL. | |
| | Examiner Shi K. Li | Art Unit 2633 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-10 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/8/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 5, fifth paragraph, "make before brake" should read "make before break"; on page 8, last line, "make before brake" should read "make before break".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 7-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 claims a method. Claim 7 recites the limitation "switching the module according to claim 1" in line 3 of the claim. That is claim 7 depends on claim 1 which is an apparatus claim. Therefore, claim 7 contains limitations for an apparatus and limitations for a method. Claim which is intended to embrace both apparatus and method is precluded by language of 35 U.S.C. 101, which set forth statutory classes of invention in alternative only, and is also invalid under 35 U.S.C. 112, second paragraph, since claim which purports to be both method and apparatus is ambiguous and therefore does not particularly point out the distinctly claim subject matter of invention. See *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. PA&I. 1990).

Claim Rejections - 35 USC § 103

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al. (U.S. Patent 5,726,788) in view of Scotti et al. (R. Scotti et al., "A Hitless Reconfigurable Add-Drop Multiplexer for WDM Networks Utilizing Planar Waveguide, Thermo-Optic Switches and UV-Induced Gratings", OFC '98, 1998).

Fee et al. discloses in FIG. 3 an optical device for dynamically reconfiguring an optical network. FIG. 3 comprises an optical switch backplane and a plurality of function blocks 302 (equivalent to network elements of instant claim). As illustrated in FIG. 5, the optical device is a pre-manufactured module suitable for connection to the optical network. The difference between Fee et al. and the claimed invention is that Fee et al. does not teach a hitless arrangement. Scotti et al. teaches in FIG. 1 a hitless reconfigurable switch. One of ordinary skill in the art would have been motivated to combine the teaching of Scotti et al. with the optical device of Fee et al. because a hitless switching arrangement reconfigures a network without disrupting services that are not affected by the reconfiguration. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use hitless switching arrangement, as taught by Scotti et al., in the optical device of Fee et al. because a hitless switching arrangement reconfigures a network without disrupting services that are not affected by the reconfiguration.

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Regarding claim 3, Fee et al. teaches in col. 2, lines 60-62 and FIG. 6 elements connectable to the switching device so that each of the elements can be either switched in the network or bypassed.

Regarding claim 4, Fee et al. teaches in col. 4, lines 49-67 that network elements connectable to the optical switching device includes amplifiers, filters, etc.

Regarding claim 5, Fee et al. teaches in FIG. 4 and col. 5, lines 19-52 that the switching devices comprises 1x2 optical switches, 1x4 optical switches, 4x4 optical switches, etc.

Regarding claim 6, Fee et al. teaches in col. 1, lines 6-12 that the optical device is used in an optical telecommunications network.

Regarding claim 7, Fee et al. teaches in FIG. 6 a method for using the optical device.

Regarding claim 8, Fee et al. teaches in col. 1, lines 10-11 on-demand reconfiguration which is equivalent to upgrading of instant claim.

Regarding claim 9, inherently, the optical device is placed into a network when the network is established.

Regarding claim 10, Fee et al. teaches in col. 3, lines 60-66 that the optical device is installed in node 101 to make said node reconfigurable.

Regarding claim 12, Scotti et al. teaches in FIG. 1 to use coupler/splitter for splitter input signal to upper path and lower path via switch 1, and coupler for combining signal from upper path and lower path to output port via switch 2. The reconfigurable optical device is installed in each of the plurality of nodes A, B, C, D and E of FIG. 1 of Fee et al. Therefore, there are a plurality of inputs, plurality of outputs, a plurality of switching devices and a plurality of splitters and couplers under the control of a controller such as illustrated in FIG. 3 of Fee et al.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 3-10 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Bhalla et al. (U.S. Patent 6,327,059 B1) teaches optical signal processing modules.

b. Fatehi et al. (U.S. Patent 6,519,064 B1) teaches scalable, reconfigurable add/drop architecture for providing in-service upgrades.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shi K. Li whose telephone number is 571 272-3031. The examiner can normally be reached on Monday-Friday (8:30 a.m. - 5:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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skl

15 August 2005



JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600



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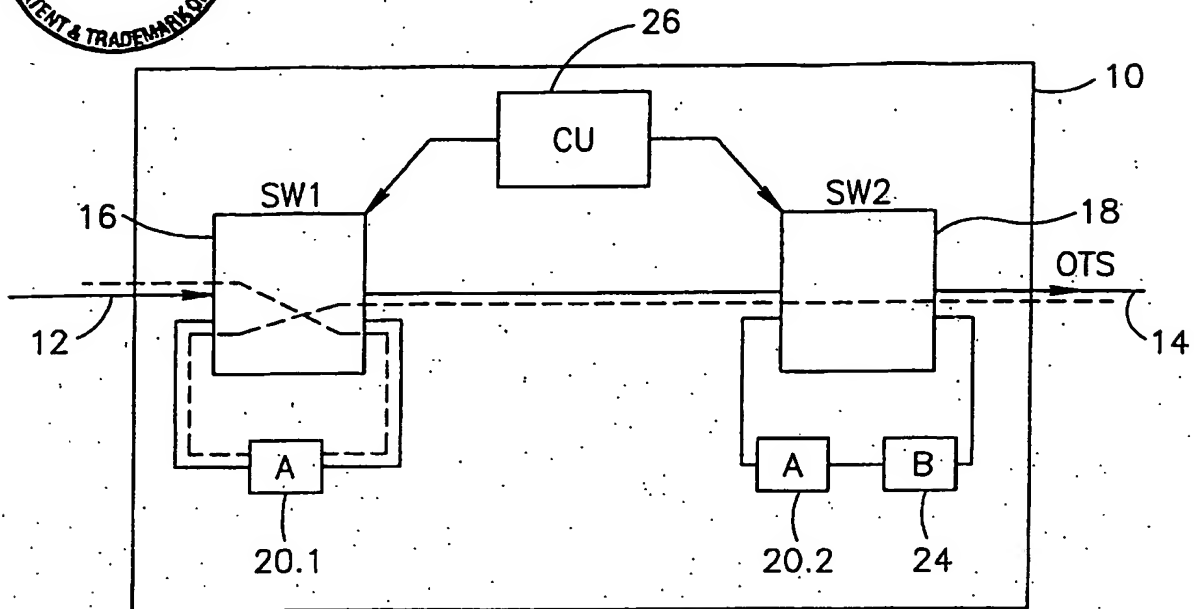


FIG. 1A

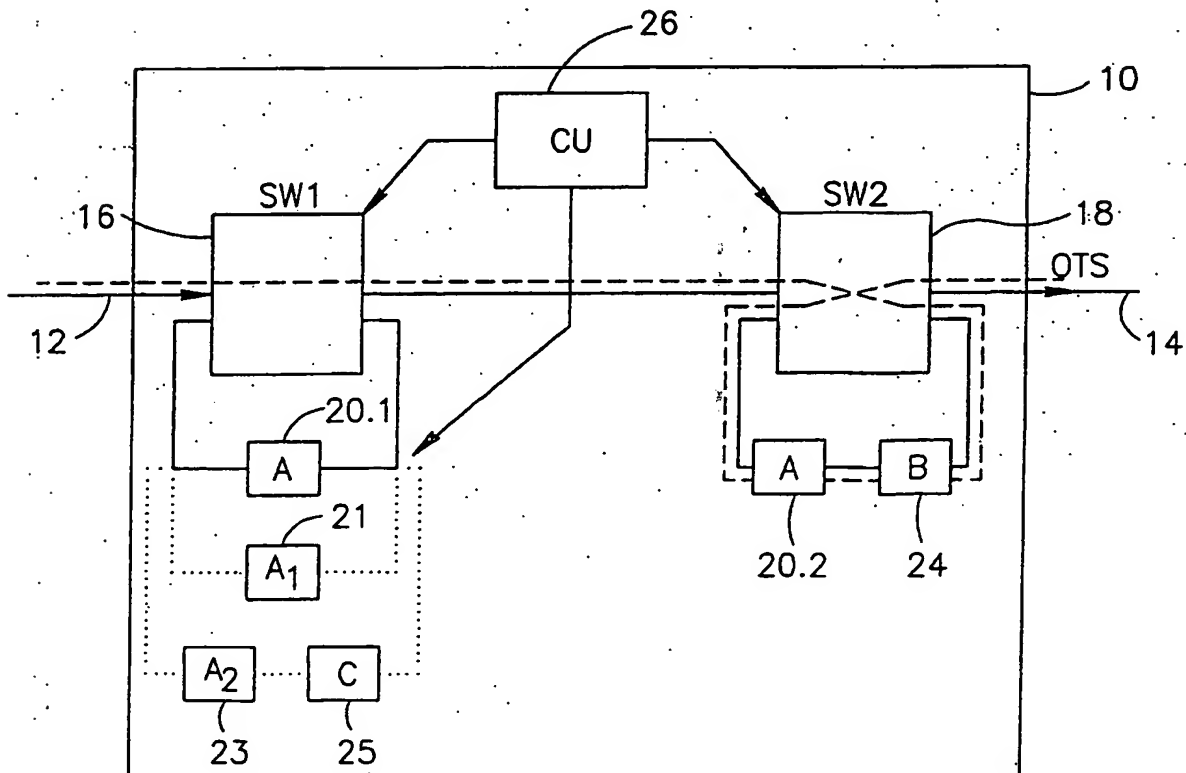
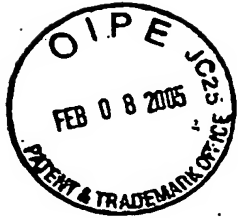


FIG. 1B



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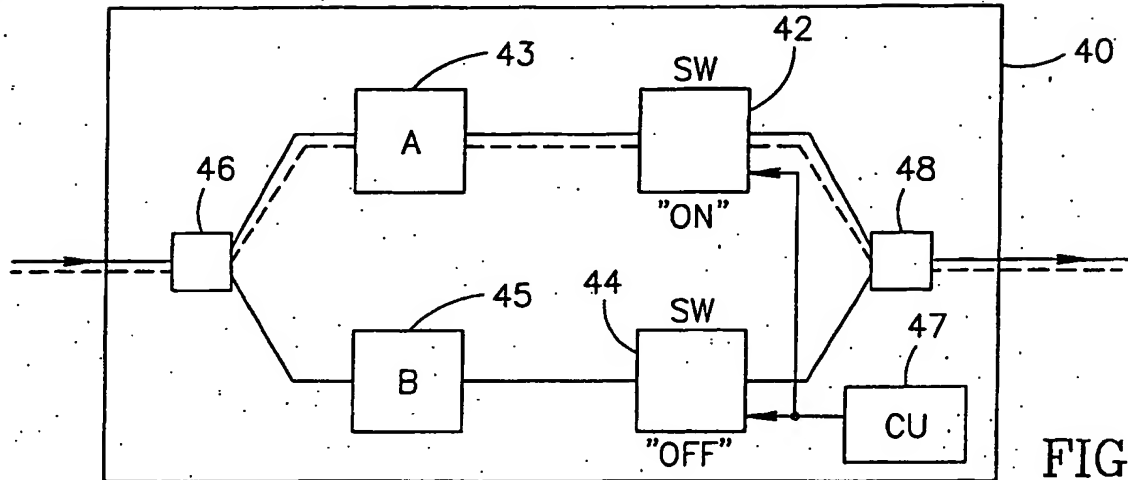


FIG. 3A

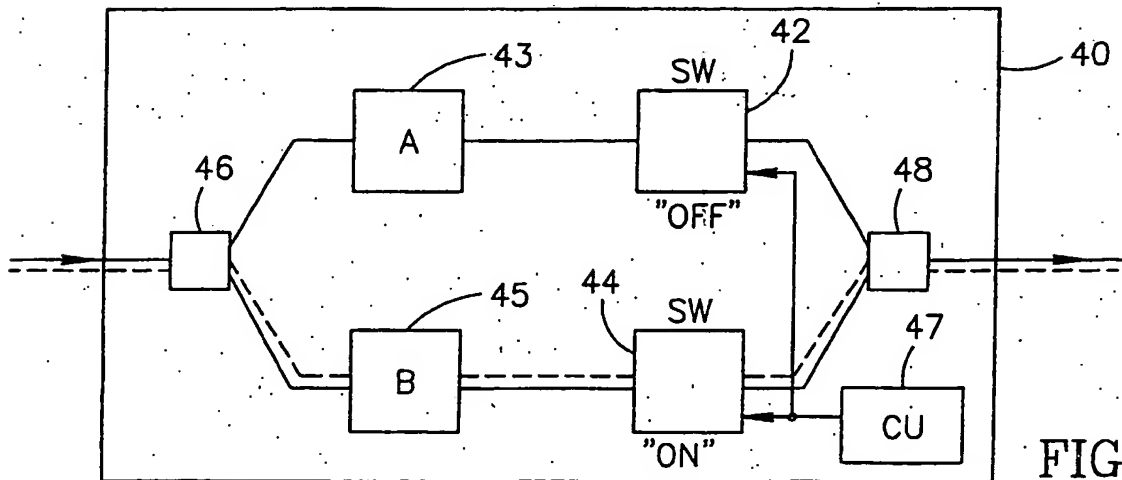


FIG. 3B

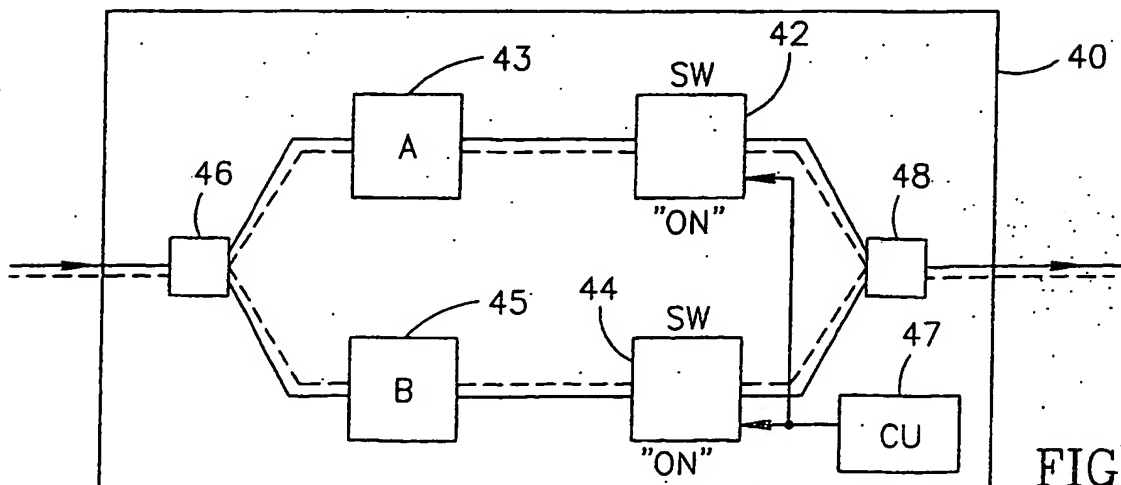


FIG. 3C



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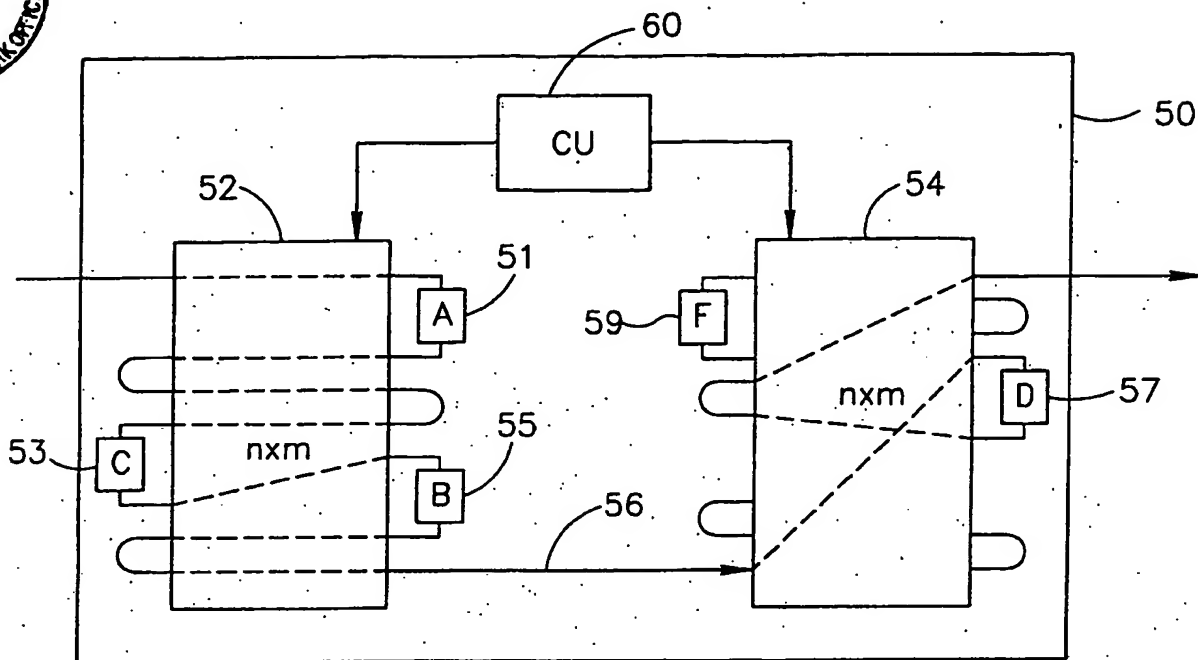


FIG. 4

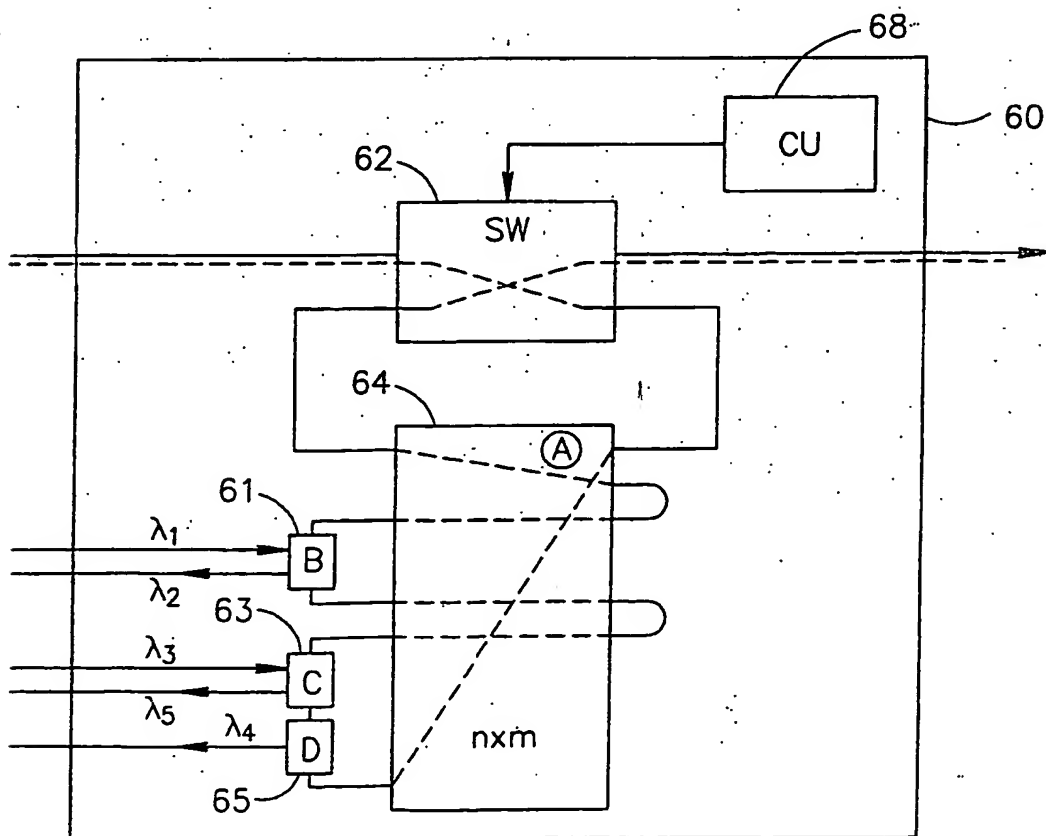


FIG. 5



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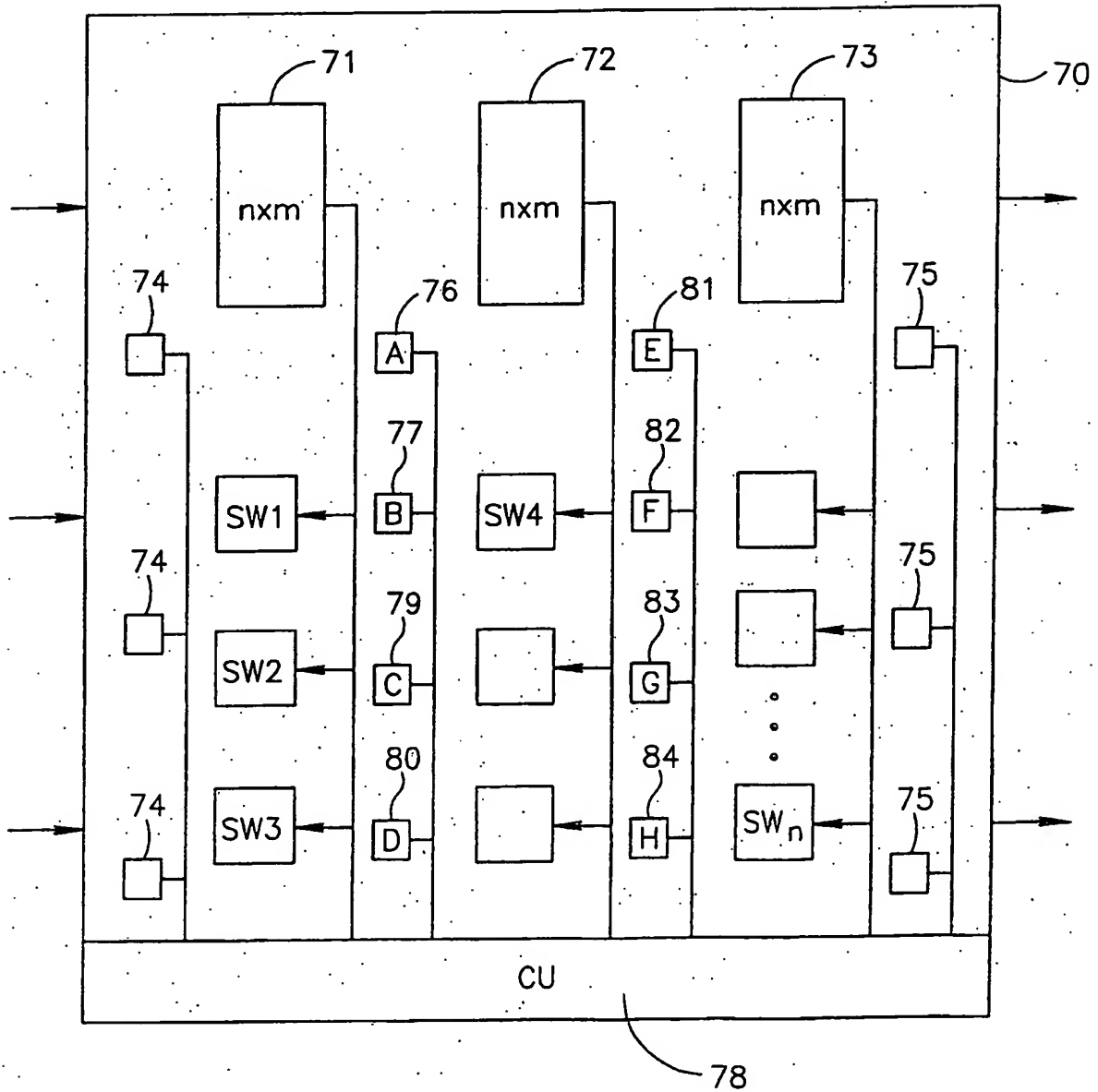


FIG. 6